

## **SYSTEM AND METHOD FOR CONTROLLING CHARGE**

### **EMISSION BY A MICRO-FABRICATED CHARGE-EMISSION DEVICE**

#### **Abstract**

Described is a system and method of controlling charge emission by a micro-fabricated charge-emission device. The micro-fabricated charge-emission device has an emitter. A controllable current source is electrically connected to the emitter of the micro-fabricated charge-emission device by an electrical path. The controllable current source provides a controlled amount of electrical current to the emitter of the charge-emission device over the electrical path to induce the emitter to emit electrical charge. The system can include a current sink connected to the controllable current source for shunting at least a portion of the current to ground upon a detection of a particular charge emission condition.